NOVEMBER/DECEMBER 2023

23UEBT12 — BIOLOGICAL CHEMISTRY

Time : Three hours Maximum : 75 marks

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SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define an atom.
2. Explain the term nucleophile.
3. Recall the types of buffer.
4. Explain the term normality.
5. List the disaccharides.
6. Explain about Ionization of water.
7. What are phospholipids?
8. Outline the various types of RNA.
9. What are essential amino acids?
10. Summarize the functions of vitamins A.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Identify the types of chemical bonds.

Or

(b) Examine the hybridization in methane.

12. (a) Organize the properties of acids.

Or

(b) Examine the concepts of Arrhenius theory.

13. (a) Make use of a table illustrate Cori cycle.

Or

(b) Analyze the characteristics of water.

14. (a) Identify and explain role of lipids in the body.

Or

(b) Examine the steps in salvage pathways of purine.

15. (a) Organize the functions of any two vitamins.

Or

(b) Analyze the types of hormones.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain about periodic table with classification.

17. Deduce Henderson Hesselbalch equation.

18. Explain the reactions of TCA cycle.

19. Elaborate on beta oxidation of fatty acids.

20. Discuss the reactions of urea cycle

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